

Stabilization, Adjustment and Growth Prospects in Transition Economies

Cevdet Denizer

Macroeconomics and Growth Division

Policy Research Department

The World Bank

February 1997

The findings, interpretations, and conclusions expressed in this paper are entirely the authors. They do not necessarily represent those of the World Bank, its Executive Directors, or the countries they represent.

Table 9. Forecasting GDP convergence to OECD countries

	Levine-Renelt				
	Per Capita	At current investment		Investment	
	Income	rates		=30 percent	
	in US\$ (PPP based) (WB, IMF:1994)	Forecasted Per Capita Growth	Number of years to reach current OECD levels	(in percent of GDP) Forecasted Per Capita Growth	Number of years to reach current OECD levels
1. Albania	495	4.08	91	6.3	59
2. Azerbaijan	1720	4.83	51	5.96	41
3. Bulgaria	4280	2.16	69	5.31	28
4. Croatia	3872	1.99	80	5.58	29
5. Czech Republic	7940	4.66	19	4.48	19
6. Estonia	6634	5.18	20	5.13	21
7. Hungary	7010	3.51	28	4.74	21
8. Latvia	5170	3.63	36	5.73	23
9. Macedonia, FYR	1604	7.28	35	5.97	42
10. Moldova	2270	2.94	73	6.04	36
11. Poland	5480	2.59	48	5.06	25
12. Romania	2950	5.8	33	5.85	32
13. Russia	4510	4.83	30	5.55	26
14. Slovak Republic	6730	3.63	29	4.98	21
15. Slovenia	5982	3.78	31	4.71	25
16. Armenia	2204	2.31	93	5.81	38
17. Belarus	4830	6.44	22	5.57	
18. Georgia	1354	6.97	39	6.62	41
19. Kazakhstan	2946	5.15	37	6.2	31
20. Kyrgyz Republic	2358	6.23	34	6.23	34
21. Lithuania	3551	3.55	47	5.65	30
22. Tajikistan	993	4.28	70	5.63	54
23. Turkmenistan	2939	6.66	29	3.86	
24. Ukraine	3149	6.79	27	5.85	31
25. Uzbekistan	2293	4.54	47	5.76	37
26. Mongolia	2090	3.86	58	5.44	41
27. China	2510	6.93	30	4.83	
28. Viet Nam	1040	3.32	88	4.37	67
Average for transition	4104	4.06	45	5.43	30
OECD average (1994)	18602	not applicable			

Table 8. Forecasting Long-term Trend Growth (Levine-Renelt)

	Population Growth Rate (WB)	Secondary School Enrollment (share of school age population (WB, KZ)	Gross Capital Formation (share of GDP) in current prices (OECD, WEO)	Per Capita Income in US\$ PPP based (WB, IMF)	Forecasted Per Capita Growth Rate	Forecasted Growth Rate
1. Albania	1.19	0.79	0.17	495	4.08	5.27
2. Azerbaijan	1.28	0.83	0.24	1720	4.83	6.10
3. Bulgaria	-0.35	0.71	0.12	4280	2.16	1.80
4. Croatia	0.06	0.80	0.10	3872	1.99	2.06
5. Czech Republic	-0.06	0.89	0.31	7940	4.66	4.60
6. Estonia	-0.31	0.92	0.30	6634	5.18	4.86
7. Hungary	-0.53	0.81	0.23	7010	3.51	2.98
8. Latvia	-0.53	0.92	0.18	5170	3.63	3.10
9. Macedonia, FYR	1.12	0.80	0.38	1604	7.28	8.40
10. Moldova	0.41	0.81	0.12	2270	2.94	3.35
11. Poland	0.20	0.83	0.16	5480	2.59	2.79
12. Romania	0.19	0.80	0.30	2950	5.80	5.99
13. Russia	0.55	0.92	0.26	4510	4.83	5.38
14. Slovak Republic	0.35	0.96	0.22	6730	3.63	3.98
15. Slovenia	0.41	0.80	0.25	5982	3.78	4.19
16. Armenia	1.40	0.85	0.10	2204	2.31	3.74
17. Belarus	0.20	0.92	0.35	4830	6.44	6.66
18. Georgia	-0.20	0.82	0.32	1354	6.97	6.76
19. Kazakhstan	0.10	0.90	0.24	2946	5.15	5.26
20. Kyrgyz Republic	0.40	0.88	0.30	2358	6.23	6.66
21. Lithuania	0.00	0.78	0.18	3551	3.55	3.55
22. Tajikistan	2.00	0.73	0.22	993	4.28	6.36
23. Turkmenistan	4.60	0.70	0.46	2939	6.66	11.57
24. Ukraine	0.00	0.80	0.35	3149	6.79	6.79
25. Uzbekistan	2.20	0.94	0.23	2293	4.54	6.84
26. Mongolia	1.90	0.78	0.21	2090	3.86	5.84
27. China	1.20	0.55	0.42	2510	6.93	8.21
28. Viet Nam	2.10	0.35	0.24	1040	3.32	5.49
Average	0.26	0.84	0.22	4443	4.06	4.32

Sources: International Monetary Fund (IMF), The World Bank (WB), Organization for Economic Co-operation and Development (OECD), and Krajnyak and Zettelmeyer (KZ, 1996), and author's estimates.

TABLE 7:
Fiscal Deficits and Quasi-Fiscal Expenditures for Selected Countries, 1992-94
(as percentage of GDP)

	Fiscal Deficits			CB Implicit Subsidy ^{a)}			Total		
	1992	1993	1994	1992	1993	1994	1992	1993	1994
<u>Advanced Reformers</u>									
Poland	6.8	2.9	2.9	0.0	0.0	0.0	6.8	2.9	2.9
Hungary	5.7	7.0	6.5	0.0	0.0	0.0	5.7	7.0	6.5
Czech Republic ^{b)}	0.5	-0.6	-0.5	0.3	0.8	0.1	0.8	0.2	-0.4
Slovakia ^{b)}	13.1	7.6	2.5	0.3	1.7	0.0	13.4	9.3	2.5
<u>Intermediate Reformers</u>									
Bulgaria	5.0	11.1	6.1	1.3	0.8	0.7	6.3	11.9	6.8
Estonia ^{c)}	-0.5	1.4	0.0	-	0.2	0.3	-	1.6	0.3
Romania	5.5	1.0	3.0	5.9	3.9	0.0	11.4	4.9	3.0
Russia ^{c)}	3.4	8.1	8.8	11.3	1.7	0.0	14.7	9.8	8.8
Kazakhstan	7.3	1.2	4.5	32.7		2.6	40.0		7.1
<u>Slow Reformers</u>									
Belarus ^{c)}	6.4	9.4	1.5	26.5	9.3	3.4	32.9	18.7	4.9
Turkmenistan ^{c)}	10.1	3.6	1.1	12.5	21.2	6.4	22.6	24.8	7.5
Uzbekistan ^{c)}	10.2	8.4	2.0	13.1	18.5	19.0	23.3	26.9	21.0

a) Implicit subsidy from the Central Bank to commercial banks and economy due to difference between the Central Bank refinancing rate and inflation. Annual figures are averages of monthly (quarterly) figures

b) For 1992 the nominal federation subsidy is divided 2 to 1 in favor of the Czech Republic.

c) Calculations done on quarterly basis.

Source: De Melo, Denizier and Gelb (1996).

TABLE 6:
Money, Interest Rates and Real Balances

Group	Countries	Cumul Lib Index	Broad Money Growth (Average Monthly Change 1992-94)	Real Money Balances 1991=100			Discount Rate in Real Terms, percent (average)	
				92	93	94	1992-1994	end-1994
Advanced Reformers	Slovenia	4.16	5	92	127	164	-3	-1
	Poland	4.14	3	98	101	104	1	3
	Hungary	4.11	2	105	106	102	0	1
	Czech Republic ^a	3.61	1	106	104	111	-1	-1
	Slovak Republic ^a	3.53	1	95	84	86	-1	-1
	Averages	3.91	2	99	104	113	-1	0
High Intermediate Reformers	Bulgaria	2.96	4	91	76	68	-3	0
	Estonia ^{f/}	2.93	7	25	20	21	n/a	-3
	Lithuania	2.62	9	30	17	20	n/a	n/a
	Latvia	2.39	6	29	28	34	-8	0
	Romania ^e	2.35	7	63	43	41	-8	12
	Albania	2.30	5 ^b	82	89	105	-4	2
	Mongolia ^g	2.27	6 ^b	56	36	40	-16	-8
	Averages	2.55	6	54	44	47	-8	1
Low Intermediate Reformers	Russia	1.92	15	32	23	16	-17	-2
	Kyrgyz Republic	1.81	11	36	16	8	-19	9
	Moldova	1.62	13	23	9	3	-18	0
	Kazakhstan	1.31	19	21	14	8	-31	4
	Averages	1.67	15	28	16	9	-21	3
Slow Reformers	Uzbekistan	1.11	19	45	53	71	-35	-12
	Belarus	1.07	20	35	33	17	-34	-5
	Ukraine	0.80	22	40	26	13	-29	-40
	Turkmenistan	0.63	23	63	73	9	-45	-48
	Averages	0.90	21	46	46	28	-36	-26
Affected by War	Croatia ^a	4.02	16	68	60	76	-9	2
	FYR Macedonia	3.92	19 ^{d/}	89	91	89	-1	1
	Armenia	1.44	24	22	7	2	-33	-26
	Georgia	1.32	29	29	24	6	n/a	n/a
	Azerbaijan	1.03	17	40	40	19	-40	-52
	Tajikistan	0.95	19	39	30	n/a	-30	-16
	Averages	2.11	21	48	42	39	-23	-18
East Asia	Viet Nam ^{d/}	3.42	n/a	97	107	n/a	1	0.6
	China	3.08	2 ^{d/}	123	141	168	-5	-5
	Averages	3.25	n/a	110	124	n/a	-2	-2.2

NB: The discount rates in real terms are calculated assuming quarterly compounding. All averages are simple averages.

a/ Data for 1992 are for the federation.

b/ Broad money growth rate is taken from a quarterly average made monthly by taking a cubic root.

c/ The average discount rate is for 1992-93. For Vietnam, the lending rate for working capital is used.

d/ The rates for 1992-93 are decomposed on monthly basis.

e/ Average interest rate collected over different types of credit.

f/ The NBE credit auction rate is used for end 1994.

g/ The discount rate used is the clearing and settlement account; a mid point of range is used.

Source: De Melo, Denizer and Gelb (1996).

TABLE 5:
Levels and Change in Revenue, Expenditures and Fiscal Balance, 1989-94

Group	Countries	Cumul Lib Index	Change in (% of GDP)			Levels, 1994 (% of GDP)		
			Revenue	Expenditure	Balance	Revenue	Expenditure	Balance
Advanced Reformers	Slovenia	4.16	4.6	5.8	-1.2	46.6	47.5	-0.9
	Poland	4.14	6.5	1.5	5.0	47.9	50.4	-2.5
	Hungary	4.11	-6.8	-1.7	-5.1	52.3	58.8	-6.5
	Czech Republic ^{a/}	3.61	-10.9	-13.8	2.9	51.2	50.7	0.5
	Slovak Republic ^{a/}	3.53	-11.6	-11.5	-0.1	50.5	53.0	-2.5
	Averages	3.91	-3.6	-3.9	0.3	49.7	52.1	-2.4
High Intermediate Reformers	Bulgaria	2.96	-21.9	-17.3	-4.6	38.0	44.1	-6.1
	Estonia	2.93	-8.0	-7.5	-0.5	35.0	35.0	0.0
	Lithuania	2.62	-25.2	-17.1	-8.1	25.1	30.4	-5.3
	Latvia	2.39	-15.1	-12.3	-2.8	36.7	38.7	-2.0
	Romania	2.35	-18.5	-7.1	-11.4	32.6	35.6	-3.0
	Albania	2.30	-20.3	-16.0	-4.3	27.7	41.0	-13.3
	Mongolia	2.27	-12.4	-17.3	5.0	36.2	48.0	-11.8
	Averages	2.55	-17.3	-13.5	-3.8	33.0	39.0	-5.9
Low Intermediate Reformers	Russia	1.90	-4.5	-4.4	-0.1	36.3	45.1	-8.8
	Kyrgyz Republic	1.81	-14.2	-3.7	-10.4	24.3	32.7	-8.4
	Moldova	1.62	-18.2	-7.8	-7.1	17.1	25.9	-8.8
	Kazakhstan	1.31	-21.7	-15.7	-6.0	19.0	23.5	-4.5
	Averages	1.66	-14.6	-7.9	-5.9	24.2	31.8	-7.6
Slow Reformers	Uzbekistan	1.11	7.8	9.2	-1.4	43.0	45.0	-2.0
	Belarus	1.07	-1.6	3.4	-1.5	36.6	38.1	-1.5
	Ukraine	0.80	15.9	25.7	-8.4	42.3	51.4	-9.1
	Turkmenistan	0.63	-26.2	-23.9	-2.3	6.2	7.3	-1.1
	Averages	0.90	-1.0	3.6	-3.4	32.0	35.5	-3.4
Affected by War	Croatia ^{b/}	4.02	12.3	8.1	4.1	27.2	27.6	-0.4
	FYR Macedonia	3.92	6.6	5.6	1.1	42.8	45.4	-2.6
	Armenia	1.44	-15.2	11.2	-21.6	37.0	61.0	-24.0
	Georgia	1.32	-16.5	-6.6	-8.1	15.0	24.0	-9.0
	Azerbaijan	1.03	10.2	24.7	-11.5	36.0	49.0	-13.0
	Tajikistan	0.95	-4.9	-0.5	-1.0	35.4	38.1	-2.7
	Averages	2.11	-1.2	7.1	-6.2	32.2	40.9	-8.6
East Asia	Viet Nam	3.42	8.7	-3.2	5.5	24.7	25.2	-0.5
	China	3.08	-5.1	-4.7	-0.4	11.4	13.3	-1.9
	Averages	3.25	1.8	-2.2	2.5	18.1	19.3	-1.2

a/ 1989 figures for Czechoslovakia.

b/ Change over 1991-94

Source: IMF, World Bank, De Melo, Denizer and Gelb (1996).

TABLE 4:
Registered Unemployment through Transition
(as percentage of labor force, end of year)

Group	Country	CLI	1989	1990	1991	1992	1993	1994
Advanced Reformers	Slovenia ^{a/}	5.01	2.9	4.7	8.2	11.1	14.5	14.5
	Poland	5.03	0.1	6.1	11.8	13.6	16.4	16.0
	Hungary	5.04	0.3	2.5	8.0	12.3	12.1	10.9
	Czech Republic	4.54	0.0	0.8	4.1	2.6	3.5	3.2
	Slovakia	4.39	0.0	1.5	11.8	10.4	14.4	14.8
	Averages	4.80	0.7	3.1	8.8	10.0	12.2	11.9
Intermediate Reformers	Bulgaria	3.57	0.0	1.5	11.1	15.3	16.4	12.8
	Estonia	3.86	0.0	0.0	0.1	4.8	8.8	8.1
	Lithuania	3.58	0.0	0.0	0.3	1.3	4.4	3.8
	Latvia	3.26	0.0	0.0	0.1	2.1	5.3	6.5
	Romania	3.00	0.0	0.0	3.0	8.4	10.2	10.9
	Albania	3.04	1.9	7.7	8.6	26.9	28.9	19.5
	Averages	3.4	0.3	1.5	3.9	9.8	12.3	10.3
Low Intermediate Reformers	Russia	2.61	0.0	0.0	0.1	0.8	1.1	2.2
	Kyrgyzstan	2.63	0.0	0.0	0.0	0.1	0.2	0.7
	Moldova	2.30	0.0	0.0	0.0	0.7	0.8	1.2
	Kazakhstan	1.88	0.0	0.0	0.1	0.5	0.6	1.0
	Averages	2.36	0.0	0.0	0.1	0.5	0.7	1.3
Slow Reformers	Uzbekistan	1.64	0.0	0.0	0.0	0.1	0.2	0.3
	Belarus	1.55	1.0	1.0	1.0	0.5	1.5	2.1
	Ukraine	1.31	0.0	0.0	0.0	0.3	0.4	0.4
	Turkmenistan	0.85	0.0	0.0	0.0	0.0	0.0	n.a.
	Averages	1.34	0.3	0.3	0.3	0.2	0.5	0.9
Affected by War	Croatia	4.83	0.0	9.3	15.5	17.8	17.5	18.0
	FYR Macedonia ^{a/}	4.70	n.a.	n.a.	18.0	19.0	19.0	19.0
	Armenia	2.02	1.0	1.0	3.5	3.5	6.2	5.6

Group	Country	CLI	1989	1990	1991	1992	1993	1994
	Georgia	1.81	0.0	0.0	0.0	5.4	8.4	n.a.
	Azerbaijan	1.47	0.0	0.0	0.1	0.2	0.7	0.9
	Tajikistan	1.34	0.0	0.0	0.0	0.3	1.1	1.7
	Averages	2.70	0.2	1.7	6.2	7.7	8.8	9.0
East	Viet Nam	4.07	n/a	n/a	n/a	n/a	n/a	n/a
Asia	China	3.67	2.6	2.5	2.3	2.3	2.6	2.8
	Averages	3.87	n/a	n/a	n/a	n/a	n/a	n/a

Source: De Melo, Denizer, Gelb (1996).

TABLE 3:
Sectoral Shifts at Constant Prices, 1989-94

Group	Countries	Cumul Lib Index	Change in share % of GDP		
			Industry	Agriculture	Services
Advanced Reformers	Slovenia ^{a/}	5.01	-23.3	-3.8	27.1
	Poland ^{a/}	5.03	-21.4	-2.0	23.4
	Hungary	5.04	-0.2	-1.7	1.9
	Czech Republic	4.54	-10.5	-0.5	11.0
	Slovak Republic	4.39	-14.8	0.2	14.6
	Averages	4.8	-14.0	-1.6	15.6
High Intermediate Reformers	Bulgaria	3.57	-10.3	4.3	6.0
	Estonia ^{a/}	3.86	-12.7	-10.1	22.8
	Lithuania ^{b/}	3.58	-11.5	2.6	8.9
	Latvia ^{a/}	3.26	-18.8	1.9	16.9
	Romania	3.00	-6.5	6.2	0.3
	Albania	3.04	-20.1	14.8	5.3
	Mongolia	2.94	3.0	4.3	-7.3
	Averages	3.3	-11.0	3.4	7.6
Low Intermediate Reformers	Russia ^{b/}	2.61	3.5	6.5	-10.0
	Kyrgyz Republic	2.63	-7.8	7.2	0.6
	Moldova	2.30	3.5	6.5	-10.0
	Kazakhstan	1.88	-6.3	17.5	-11.2
	Averages	2.4	-1.8	9.4	-7.7
Slow Reformers	Uzbekistan ^{a/}	1.64	-7.6	12.7	-5.1
	Belarus ^{a/}	1.55	5.8	-2.8	-3.0
	Ukraine	1.31	-11.2	10.0	1.2
	Turkmenistan ^{c/}	0.85	-4.5	0.1	4.4
	Averages	1.3	-4.4	5.0	-0.6
Affected by War	Croatia	4.83	-4.0	0.8	3.2
	FYR Macedonia	4.70	9.1	-6.0	-3.1
	Armenia ^{c/}	2.02	-6.4	0.0	6.4
	Georgia	1.81	-8.7	18.3	-9.6
	Azerbaijan	1.47	-14.8	0.2	14.6
	Tajikistan	1.34	n.a.	n.a.	n.a.
	Averages	3.0	-5.0	2.7	2.3
East Asia	Viet Nam	4.07	-1.1	-6.0	7.1
	China	3.67	18.6	-6.1	-12.5
	Averages	3.9	8.8	-6.1	-2.7

a/ Change over 1989-93

b/ Change over 1989-92

c/ Change over 1989-91

Sources: De Melo, Denizer and Colb (1996)

TABLE 1:
Liberalization, and Growth, 1989-95

Group	Countries	<u>CLI</u>		<u>Annual Output Growth</u>					Av growth		93/94 GDP	Lowest level
		1995	1989	1990	1991	1992	1993	1994	1995	93/94	/89 GDP	of GDP/89 GDP
Advanced	Slovenia	5.01	-2.70	-4.70	-8.10	-5.40	1.30	5.50	4.00	3.0	84	81
Reformers	Poland	5.03	0.20	-11.60	-7.00	2.60	3.80	6.00	6.50	4.2	88	82
	Hungary	5.04	0.70	-3.50	-11.90	-3.00	-0.80	2.90	1.70	0.0	81	80
	Czech Rep.	4.54	1.40	-1.20	-14.20	-6.40	-0.90	2.60	4.80	0.8	81	80
	Slovakia	4.39	4.50	-0.40	-15.90	-6.70	-4.70	4.80	7.40	0.4	79	77
	Averages	4.80	0.82	-4.28	-11.42	-3.78	-0.26	4.36	4.88	1.7	83	80
High	Bulgaria	3.57	-0.50	-9.10	-11.70	-7.30	-2.40	1.40	2.50	-1.4	73	73
Intermediate	Estonia	3.86	-1.10	-3.60	-11.90	-21.60	-8.40	3.00	4.00	0.9	69	67
Reformers	Lithuania	3.58	1.50	-5.00	-13.40	0.00	-18.40	1.00	3.50	-7.3	44	44
	Latvia	3.26	3.00	-2.30	-11.10	-35.20	-14.80	2.00	0.40	-4.4	60	59
	Romania	3.00	-5.80	-7.40	-12.90	-8.80	1.30	3.90	6.90	2.2	69	67
	Albania	3.04	9.80	-10.00	-28.00	-7.20	9.60	9.40	8.60	9.5	74	65
	Mongolia	2.94	4.20	-2.00	-9.20	-9.50	-3.00	2.10	6.30	0.6	84	83
	Averages	3.32	1.59	-5.63	-14.03	-12.80	-5.16	3.26	4.60	0.03	68	65
Low	Russia	2.61	3.00	-2.00	-12.90	-19.00	-12.00	-15.00	-4.00	-13.5	57	52
Intermediate	Kyrgyzstan	2.63	3.00	4.00	-5.00	-19.30	-16.10	-26.20	1.30	-13.2	61	57
Reformers	Moldova	2.30	8.80	-1.50	-18.00	-29.10	-1.20	-31.20	-3.10	-17.0	53	46
	Kazakhstan	1.88	-0.40	-0.40	-18.80	-13.90	-12.00	-25.00	-8.90	-18.5	57	49
	Averages	2.36	3.60	0.03	-13.68	-20.33	-10.33	-24.35	-3.68	-15.6	57	51
Slow	Uzbekistan	1.64	3.70	4.30	-0.90	-11.00	-2.40	-3.50	-1.20	-2.5	89	88
Reformers	Belarus	1.55	7.90	-3.20	-1.20	-9.60	-10.70	-19.10	-10.20	-16.6	73	64
	Ukraine	1.31	4.10	-3.60	-11.90	-17.00	-13.00	-21.80	-11.40	-18.6	56	48
	Turkmenista	0.85	-7.00	-2.30	-4.80	-5.30	-10.20	-20.00	-13.90	-15.0	69	62
	Averages	1.34	2.18	-1.20	-4.70	-10.73	-9.08	-16.10	-9.18	-13.2	72	66
Affected	Croatia	4.83	-1.50	-8.50	-20.90	-9.70	-3.70	0.80	-1.50	-0.7	69	68
by War	FYR Macedo	4.70	0.90	-9.70	-10.70	-21.10	-8.40	-8.20	-3.00	-10.7	57	55
	Armenia	2.02	14.20	-7.20	-11.80	-52.30	-14.80	5.30	5.00	-7.4	38	38
	Georgia	1.81	-4.80	-12.40	-20.60	-44.80	-25.40	-11.30	-5.00	-24.6	24	23
	Azerbaijan	1.47	-4.40	-11.70	-0.70	-22.10	-23.10	-21.10	-13.20	-17.7	50	44
	Tajikistan	1.34	-2.90	-1.60	-7.10	-29.00	-11.00	-21.50	-12.50	-26.3	35	30
	Averages	2.70	0.25	-8.52	-11.97	-29.83	-14.40	-9.33	-5.03	-14.5	45	34
East	Viet Nam	4.07								8.5	145	100
Asia	China	3.67								11.7	157	100
	Averages	3.87								10.1	151	100

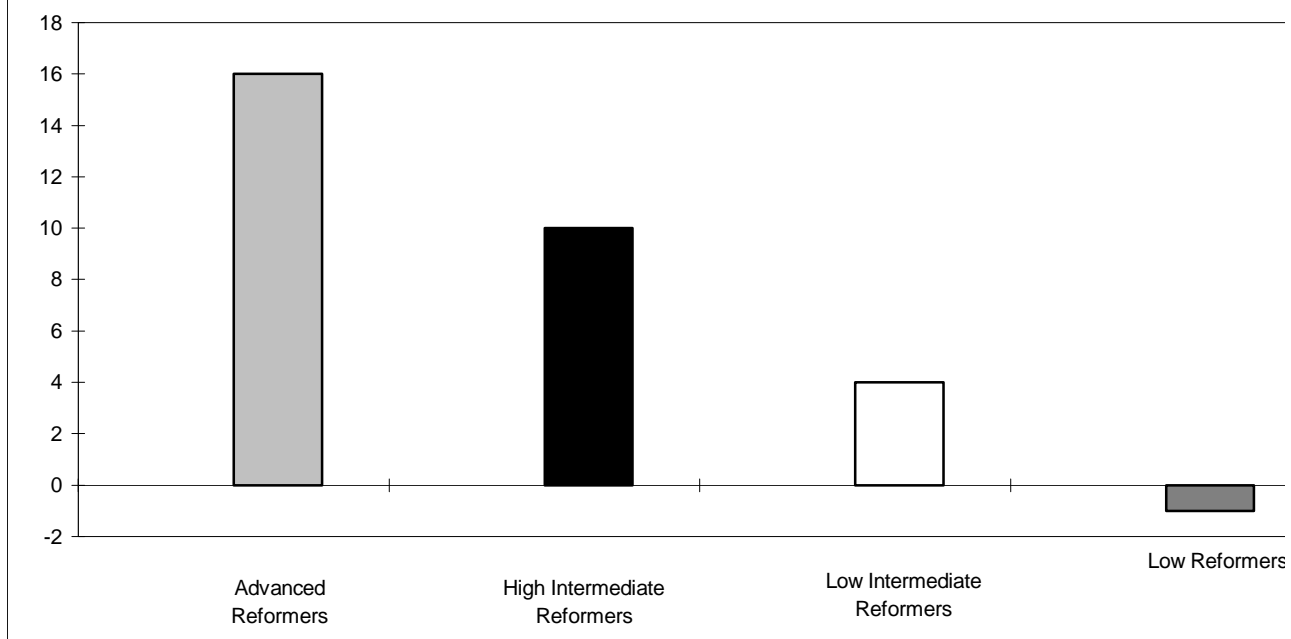
Note: CLI = cumulative liberalization index.

TABLE 1:
Liberalization, and Growth, 1989-95

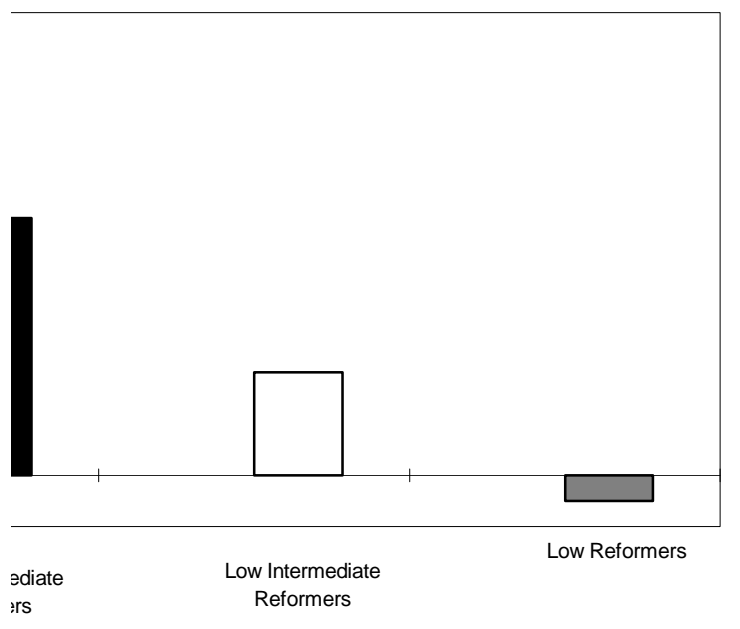
Group	Countries	<u>CLI</u>		<u>Annual Output Growth</u>					Av growth		93/94 GDP	Lowest level
		1995	1989	1990	1991	1992	1993	1994	1995	93/94	/89 GDP	of GDP/89 GDP
Advanced	Slovenia	5.01	-2.70	-4.70	-8.10	-5.40	1.30	5.50	4.00	3.0	84	81
Reformers	Poland	5.03	0.20	-11.60	-7.00	2.60	3.80	6.00	6.50	4.2	88	82
	Hungary	5.04	0.70	-3.50	-11.90	-3.00	-0.80	2.90	1.70	0.0	81	80
	Czech Rep.	4.54	1.40	-1.20	-14.20	-6.40	-0.90	2.60	4.80	0.8	81	80
	Slovakia	4.39	4.50	-0.40	-15.90	-6.70	-4.70	4.80	7.40	0.4	79	77
	Averages	4.80	0.82	-4.28	-11.42	-3.78	-0.26	4.36	4.88	1.7	83	80
High	Bulgaria	3.57	-0.50	-9.10	-11.70	-7.30	-2.40	1.40	2.50	-1.4	73	73
Intermediate	Estonia	3.86	-1.10	-3.60	-11.90	-21.60	-8.40	3.00	4.00	0.9	69	67
Reformers	Lithuania	3.58	1.50	-5.00	-13.40	0.00	-18.40	1.00	3.50	-7.3	44	44
	Latvia	3.26	3.00	-2.30	-11.10	-35.20	-14.80	2.00	0.40	-4.4	60	59
	Romania	3.00	-5.80	-7.40	-12.90	-8.80	1.30	3.90	6.90	2.2	69	67
	Albania	3.04	9.80	-10.00	-28.00	-7.20	9.60	9.40	8.60	9.5	74	65
	Mongolia	2.94	4.20	-2.00	-9.20	-9.50	-3.00	2.10	6.30	0.6	84	83
	Averages	3.32	1.59	-5.63	-14.03	-12.80	-5.16	3.26	4.60	0.03	68	65
Low	Russia	2.61	3.00	-2.00	-12.90	-19.00	-12.00	-15.00	-4.00	-13.5	57	52
Intermediate	Kyrgyzstan	2.63	3.00	4.00	-5.00	-19.30	-16.10	-26.20	1.30	-13.2	61	57
Reformers	Moldova	2.30	8.80	-1.50	-18.00	-29.10	-1.20	-31.20	-3.10	-17.0	53	46
	Kazakhstan	1.88	-0.40	-0.40	-18.80	-13.90	-12.00	-25.00	-8.90	-18.5	57	49
	Averages	2.36	3.60	0.03	-13.68	-20.33	-10.33	-24.35	-3.68	-15.6	57	51
Slow	Uzbekistan	1.64	3.70	4.30	-0.90	-11.00	-2.40	-3.50	-1.20	-2.5	89	88
Reformers	Belarus	1.55	7.90	-3.20	-1.20	-9.60	-10.70	-19.10	-10.20	-16.6	73	64
	Ukraine	1.31	4.10	-3.60	-11.90	-17.00	-13.00	-21.80	-11.40	-18.6	56	48
	Turkmenista	0.85	-7.00	-2.30	-4.80	-5.30	-10.20	-20.00	-13.90	-15.0	69	62
	Averages	1.34	2.18	-1.20	-4.70	-10.73	-9.08	-16.10	-9.18	-13.2	72	66
Affected	Croatia	4.83	-1.50	-8.50	-20.90	-9.70	-3.70	0.80	-1.50	-0.7	69	68
by War	FYR Macedo	4.70	0.90	-9.70	-10.70	-21.10	-8.40	-8.20	-3.00	-10.7	57	55
	Armenia	2.02	14.20	-7.20	-11.80	-52.30	-14.80	5.30	5.00	-7.4	38	38
	Georgia	1.81	-4.80	-12.40	-20.60	-44.80	-25.40	-11.30	-5.00	-24.6	24	23
	Azerbaijan	1.47	-4.40	-11.70	-0.70	-22.10	-23.10	-21.10	-13.20	-17.7	50	44
	Tajikistan	1.34	-2.90	-1.60	-7.10	-29.00	-11.00	-21.50	-12.50	-26.3	35	30
	Averages	2.70	0.25	-8.52	-11.97	-29.83	-14.40	-9.33	-5.03	-14.5	45	34
East	Viet Nam	4.07								8.5	145	100
Asia	China	3.67								11.7	157	100
	Averages	3.87								10.1	151	100

Note: CLI = cumulative liberalization index.

Figure 1. Change in share of service sector in GDP



share of service sector in GDP



I. INTRODUCTION

It is now almost eight years since the transition from plan to market and from one party to democratic rule has begun in Eastern Europe (EE), and over five years in the former Soviet Union (FSU). It is widely agreed that this political and economic transition, affecting about one fourth of the world's population, has been a unique and historic experience¹. In EE political regimes changed in a very short time ending one party system socialism. In further east, the collapse of the FSU resulted in fourteen newly independent states. Output declines surpassed expectations and some countries lost more than half of their GDPs by 1995. Over the course of the transition inflation has reached thousands of percent, especially in FSU countries, sharply lowering wages and hence living standards.

The scope and scale of necessary policy reforms to complete the transition have been unprecedented. Since the entire economic and political edifice has collapsed, the transition required a "systemic change; liberalization of tightly controlled prices under socialism, freeing of foreign trade and opening up current and capital accounts, allowing private sector entry, privatization and enactment of laws for private property ownership, and restructuring of financial systems. However, the issue was not simply implementing these reforms. As noted by Bruno (1993) the main novelty in EE and FSU lied in "the revolutionary change in institutions and in the required norms of economic behavior...", Clearly, this includes, in fact requires, redefining the role of the State, a major task by itself.

On this front, the EE and FSU countries faced different challenges. While the EE countries were sovereign states prior to the collapse of socialism, with the exception of Russia and the Baltics,

¹ For a review of socialist sytem and some aspects of transition experience in a historical context see Kornai (1992). For a review of conceptual linkages among reform policies see Kornai (1995), and Blanchard (1997). For a comprehensive review of the economic issues during transition see Lavigne (1995). Stiglitz(1994) also discusses some important aspects of transition. Gros and Steinherr(1995) provide a thorough review of transition in EE. Eurpean Bank for Reconstruction and Developmet (EBRD) provides a review of transition in its annual Transition Report since 1994. For a comprehensive review of transition, including China's experience, see World Development Report (1996).

the FSU states that became sovereign nations after the dissolution of in 1991 faced a double task: (i) developing an administrative capacity so as to function as a sovereign nation state; and (ii) creating national economies out of a highly integrated all Union plan based economy and converting it into a market based one. Hence, it was clear in the beginning that transition in the FSU would be more problematic.

To this day, the transition has been an uneven process and cross country experience has varied significantly. Despite early difficulties, some countries have made impressive progress. Almost all EE countries stabilized their economies and by 1994 most were enjoying growth. In the FSU, output and inflation performance has been much more variable and transition has been more difficult as was expected. With the exception of a handful of countries, the majority of the countries in the FSU delayed reforms or adopted reforms gradually, and they suffered higher output falls and higher inflation than in EE. Nevertheless, by the beginning of 1995 stabilization efforts picked up in almost all FSU countries and most managed to control inflation. Structural reforms, however, with the exception of a few countries, have progressed at a slower pace and growth performance has not been as strong as in EE.

Against this background, the objective of this paper is twofold. As the discussion above suggests and noted in the literature, reforms and economic outcomes varied widely across countries and this gave rise to "transition patterns" in terms of growth and inflation (World Bank). What accounts for these patterns? Is it largely due to policy variations or inherited initial conditions, or both? These questions are the focus of the first part of the paper. In the second part, the paper considers the growth prospects of transition economies. Since they all suffered from output declines and improving welfare requires growth, this issue is high on the agenda for all transition economies. The focus is on

the analysis of factors of that could facilitate or hinder growth based on the findings of the current empirical growth literature.

The limitations of the data used in this paper and in other transition related studies is well known and are discussed elsewhere². However, since the focus of the paper is on comparative patterns broadly rather than precise estimates of various aggregates or their analysis, it is thought that available data could serve the purpose on hand reasonably well.

II. PERFORMANCE DURING THE TRANSITION

This section provides a review of main macroeconomic aggregates, GDP growth and inflation rates in the EE and FSU up to 1996. The data organized according to the Cumulative Liberalization Index (CLI) originally prepared by de Melo, Denizer and Gelb (DDG). The CLI is annual and covers the period between 1989 - 1995. It is composed of three sub-indices and each vary between zero, representing a centrally planned economy and one, representing a reformed, market based economy. These are internal or domestic price liberalization and competition (I); foreign trade liberalization and current and capital account convertibility (E) and privatization, new entry regulations and small and large enterprise development (P). Using these three sub-indices and assigning them weights (0.3, 0.3, and 0.4 respectively) DDG create a cumulative liberalization index (CLI) for the same time period. In this way, the CLI captures both the intensity and duration of reforms.

Following this exercise, the countries are grouped into reform categories. Countries that were affected by regional tensions or civil wars, are shown separately. The groupings are arranged by the following values of the CLI:

² For a discussion of the nature of data biases in transition countries see World Development Report (1996).

Group 1: advanced reformers, $CLI > 4$

Group 2: (high) intermediate reformers, $2.7 < CLI < 4$

Group 3: (low) intermediate reformers, $1.7 < CLI < 2.7$

Group 4: slow reformers, $CLI < 1.7$

As shown in table 1, when transition started out, 1989 in EE and late 1991 in FSU, there was a recession in all countries. This was expected and many analysts pointed this out early in the transition (Bruno 1991, Fischer and Gelb 1991). What was not expected, however, was the severity of the declines in output. Initial years of transition saw massive declines in reported GDP, which reached to an average of 41 percent of GDP by 1995, as noted by Fischer et al (1996). In the case of FSU, output collapse started in 1992 although in most countries output has been falling since 1989. This was mainly due to the breakdown of the CMEA trading system, and given the interlinked nature of production structure in the FSU, output falls were simply unavoidable early on in the process.

Inflation has also increased rapidly initially. This largely reflected the effects of price liberalization and hence it was a necessary level adjustment towards international prices. However, continued increases in prices after the initial spurt largely reflected the effects of monetary financing of deficits. Only three countries in Europe (Czech Republic) managed to contain inflation in double digits throughout. In the FSU inflation first increased in 1991 from previous low levels. Starting in 1992, price increases reached record levels, with Armenia and Ukraine recording inflation rates of 10,000 percent in the year of maximum inflation. Every country in FSU, except the Baltics, at one point experienced inflation rates of more than 1000 percent.

Starting in 1992 growth was turned positive in Poland and by 1994 all advanced reformers were growing strongly which continued in 1995 and preliminary estimates of output suggest this trend has continued in 1996 (EBRD, 1996). As shown table 1, the cumulative output drop, at about 20 percent between 1989 and 1994, was the lowest in this group relative to all other countries included in this study. The next group, high intermediate reformers also started to grow in 1994 but this group, on average, registered a cumulative output fall of 35 percent in the same period. On the other hand, with the exception of the Kyrgyz Republic, low intermediate reformers were still registering negative growth in 1995³. Moreover, these countries lost half of their output. Slow reformers seem to have suffered less in terms of output drop but growth was still negative in 1995, and 1996 according to preliminary estimates of GDP in those countries. Not surprisingly, countries affected by regional conflicts or internal disturbances lost more than half of their output although some attained relatively high CLI values.

Inflation data, shown in table 2, more or less mirrors the patterns of growth with one major difference. That is, in every country where growth turned positive, this was preceded by a sharp fall in inflation rates, or stabilization. In fact, as data shows growth returned in EE about two years after inflation stabilization was achieved. In others in FSU and Mongolia resumption of growth took longer, about 3 years after stabilization which is a year longer than the EE countries.

These patterns are also visible if fiscal deficits and base money data are arranged by the CLI, which are presented in tables 7 and 8. As can be seen, there was almost one to one relationship between fiscal deficits and base money growth. In the advanced reformers, deficits are much smaller

³ Output data does not include estimates of the informal sector and hence actual decline is probably lower. See Kaufman and Kaliberda (1996) for estimates of the unofficial economy in transition economies.

and the monetary policy is not under pressure to accommodate the deficits. In the second and third group deficits are larger but base money growth was still under control as domestic and foreign financing were available which in turn depended upon reforms. The slow reforming group seem to have lesser deficits than the second and third group but this hides subsidized central bank lending. As shown by DDG (1996) and reproduced in this paper as table 9, such lending, which is an element of quasi-fiscal deficits, ranged 9-20 percent of GDP in slow reformers and as a result base money growth was rapid.

III. REFORMS, GROWTH AND INFLATION

What lies at the source of this differential reform, output and inflation performance across countries? It is obvious that one source is the economic policies followed by countries. To explore the relationship between policies and outcomes, a cross country regression analysis is carried out similar to DDG (1996). In this framework growth and inflation equations are estimated as functions of the CLI and some other control variables. Since the other source of cross country variation could be due to initial conditions (ICs), this paper extends the DDG study including proxies for ICs into the regression equations.

The other variables included in the regression analysis are the following. In the first equation, the dependent variable is the GDP growth rate (GR). The CLI is the key variable. A positive relationship would be an indication of the beneficial effects of economic policies or reforms on growth. Since overindustrialization was one of the features of centrally planned economies, the share of industry in GDP (IS) was included in the equations. The rationale is that the more industrialized a country, the disruption of trade and financial flows due to the collapse of planning would be larger and

reduce growth rate during the transition period. In this way the effects of trade dependence are also captured.

There are two initial condition proxies included in the equations. The first is a dummy variable for institutional factors (IF). It is given a value of one for the countries which were market oriented and sovereign states before becoming socialist countries. The idea is to understand the importance of market memory and administrative capacity during the transition. As noted already most FSU countries, except the Baltics, were never independent states in their history and this could be an important determinant of their ability to reform. The second factor considered is the distance, (DM) from markets. For this purpose, following Murrell (1996) the distance (in miles) from Vienna is used. The goal is to understand the importance of geographical distance from rich markets on growth performance. Regional tensions are also captured with a dummy variable (RT).

The following equation is estimated with t ratios in parenthesis:

$$GR = -3.2 + 1.9CLI - 1.2IS - 4.7DM + 3.9IF - 9.1RT \dots\dots\dots (1)$$

$$(-2.8) \quad (3.1) \quad (-2.2) \quad (-4.2) \quad (1.9) \quad (-3.7)$$

Adjusted R2: 0.57

For inflation a different specification is proposed. In addition to the CLI, fiscal deficits (FD) and repressed inflation (RI) are added. Fiscal deficits are consolidated budget deficits of each country.

Repressed inflation is calculated by change in wages less change in GDP. Since only wage payments were made in cash under central planning, wage rises beyond GDP growth would mean the accumulation of financial assets by households given shortages of goods. This is also known as monetary overhang. Hence, the larger the repressed inflation, the larger the price increases would be.

The estimated equation is:

$$\text{LogINF} = 3.7 - 4.2\text{CLI} + 1.2\text{FD} + 2.9\text{RINF} + 9\text{RT} \dots\dots\dots(2)$$

$$(2.9) \quad (-2.4) \quad (4.33) \quad (1.8) \quad (2.5)$$

Adjusted R2: 0.63

According to the results in the first equation, CLI was positively related to growth. The coefficient of industry confirms our expectation that more developed countries would face larger declines in their growth rates. Both initial condition variables enter with the expected sign. This suggest that countries that were not independent states in their history and far from rich markets suffered more during the transition. This is an important finding as it suggests that initial conditions matter in the transition period and this may have limpications for long run growth potential of the countries in question. Regional tension variable enters with a negative sign as anticipated. While the estimated coefficient needs to be interpreted with caution as they only capture broad relationships between the variables used, the large coefficient of regional tension variable is suggestive of how much it could add to the decline in the growth rate in addition to other factors.

Results of the inflation equation are also in line with our apriori expectations. Comprehensive and sustained reform efforts were negatively related to inflation rates. Smaller fiscal deficits also reduce inflation although its significance level is lower than the CLI coefficient. This is expected because reforms reduce subsidies which in turn reduce fiscal deficits. Repressed inflation enters with a positive sign which suggests that this variable as expected. Regional tension (RT) variable has a positive coefficient as expected and highly significant⁴

Regressions were also run with the individual components of the index. The results show that this does not change the qualitative conclusions and hence they are not presented. In each case they are significant and enter with the expected sign. There is a change in the coefficients but this is relatively small in magnitude.

IV. REFORMS AND STRUCTURAL CHANGE: THE LINKS AND THE PROGRESS

The effects of the intensity and duration of reforms on economic structure can be analyzed by examining three indicators. The first one is the share of services. Previously, this was a repressed sector, and with the liberalization of the economy, it was expected that services would expand rapidly.

As shown in table 3, this was realized and rapidly reforming economies recording the largest increases as a percentage in their GDPs. In fact, given the decline in the shares of industry and agriculture, it seems that the link between growth and reforms were largely driven by the growth of the services sector.

The other indicator of structural change is the change in the share of private sector in GDP. It goes without saying that private sector's share was low under socialism. However, again there were

⁴ Controlling for the effects of different reform start dates did not change the results. Hence time profile of inflation and growth support the results presented in this paper. For a description of the technique how this could be done see DDG (1996).

differences across countries. In EE, Poland, for example, had a sizable agricultural sector and private sector accounted for between 30-40 percent in EE before transition began. In FSU, the share was quite small averaging about 15-20 percent of GDP at the most. By 1994, about 3 years after reforms private sector surpassed 50 percent mark in all advanced reformers and by 1996 this percentage was up by as much as 75 percent in Czech Republic and Albania (figure 1). In FSU, excluding Baltics, this process has been slower and three years after the collapse of the FSU, or in 1995, private sector share as a whole remained relatively low, about 37 percent on average. Only Russian Federation had a larger share of private sector than the public sector as of mid-1996. The Kyrgyz Republic was the second after Russia with 50 percent.

Change in employment is also an indication of adjustment and restructuring. While the data on employment in FSU is particularly problematic, the broad trends can be observed and compared to the EE countries. As shown in table 4, advanced reformers and high intermediate reformers differ radically on this measure. Measured unemployment rose steadily between in EE and the Baltics whereas it remained at negligible levels in the FSU countries. While unofficial data suggests employment is much higher in FSU as well, the registered unemployment data does not show this. Since enterprise labor shedding has been much slower in FSU this maybe normal. However, it is evident that reallocation of labor has been happening at a more rapid rate in EE than FSU.

Taken together these patterns suggest the following. First, since service sector growth led the recovery and this was due to the de novo entry by small and medium firms through new-start ups and not privatization, it seems that growth came from reallocation of resources and hence increased efficiency (Gomulka, 1996). Changes in investment ratios point to the same conclusion. As shown by De Melo et al (1996) investment ratios fell from around 36 percent on average under socialism to

about 20-25 percent range over the course of transition. The fact that many transition countries are now growing for the last couple of years with these lower investment rates is a clear indication that investment efficiency is much higher now than before.

The link to reforms seem reasonably straightforward. In reforming countries liberalizing the economy forced sectors that suffered from structural demand shift due to collapse of communism to adjust. At the same, since this involved the elimination of subsidies (hard budget constraints), it permitted new and expanding sectors to obtain resources. This in turn supported growth in new and productive sectors and moderated the decline in GDP. Hence, reforming transition economies required simultaneous implementation of macro and micro policies. Moreover, as the experience shows, this did not involve a trade off between growth and stabilization⁵. What policy choices affected were the time profile of output declines, not their cumulative decline since the structural demand shift was a permanent event. Given this situation, status quo, or non-reform was not a policy choice. This also implied that delaying reforms would not improve output performance and it is in this sense rapid reforms are desirable. Clearly and with the benefit of hindsight, the issue was not fast reform versus gradual reform for growth performance and inflation performance but one of trade-off between reforms and growth and inflation.

V. ECONOMIC GROWTH POTENTIAL IN THE LONG TERM

Section III analyzed the determinants of growth during the transition period using cross country regression equations. The results are indicative of this period and they are literally transitory findings. Further, as economies move along, the explanatory power of independent variables used in

⁵ Bruno and Easterly (1994) and Easterly (1996) show that stabilization programs do not necessarily involve output losses. In fact, Easterly shows that most stabilization programs are expansionary.

equation 1 will be diminished. Hence, a longer run growth potential analysis would require standard growth determinants type of analysis. However, sufficient time has not passed yet to estimate meaningful long term growth equations for transition economies.

Given this problem, we adopt the approach used by Fischer, Sahay and Vegh (1996), which relies on the existing cross-country growth determinants found in Barro (1991), and Levine and Renelt (1992). Fischer et al carry out such analysis for 15 of the 26 transition countries considered in this study. In this paper, their analysis is extended for all 26 transition economies in EE and FSU. The basic strategy is to use coefficients estimated by Levine and Renelt (LR) and estimate growth rates for transition economies as a function of initial conditions and control variables that condition the long run growth process in the neo-classical models of growth. Our analysis draws on LR because their analysis includes variables that are shown to be robust in various specifications of the growth equation.

The long run growth determinants for the 26 countries under study are presented in table 5. Data sources are given under each variable heading in the same table. The equation used to estimate future growth rates takes the following form:

$$gp(t) = f(Y(0), SSE(0), IN(t), PGR(t))$$

In this formulation $gp(t)$ is the growth rate of per capita income. $Y(0)$ is the initial per capita income, $SSE(0)$ is the secondary school enrollment ratio measured as a percentage of the total secondary school aged population, $IN(t)$ is the ratio of physical investment to GDP, and $PGR(t)$ is the population growth rate. It is expected that the per capita growth rate, gp , would have a negative relationship to $(Y0)$. This is due to the neoclassical convergence hypothesis which posits that poorer

countries should grow faster than the richer countries holding everything else constant. SSE is included to capture human capital's impact on growth and it is expected that this variable would have a positive relationship to gp. As shown in the literature higher investment rates tend to increase growth rates although the efficiency of investment is also important. PGR is expected to have a negative relationship with gp.

As shown in table 5, there are large differences across countries in terms of per capita income. This is even true for the FSU countries which shows the former Union was not successful in reducing gp differences among its constituents. It is clear that the EE countries and the Baltics are closer to middle income countries than most of the FSU. Investment levels declined from previous highs as noted already and as of 1994 averaged around 25 percent of GDP which seems reasonable. It is however relatively low in Albania, Bulgaria, Croatia, Macedonia, and Poland. On the other hand they are unrealistically high in Belarus and Turkmenistan which is probably due to measurement problems.

As noted by Fischer et al (1996), the most interesting feature of this table is the high secondary school enrollment ratios. This reflects the importance attached to education under socialism and should be regarded as a potential source for growth. While this is so, what is important is to realize that there will be different skill needs under a market based system and all transition economies will continue to need to invest in human capital.

Population growth rates show a significant degree of variation across countries. The EE and Baltics have low growth rates while some parts of the FSU, mostly Central Asian countries, have rates. This suggests higher growth rates for the EE and Baltics and lower for the Central Asian states.

Using this data and the coefficients of the Levine and Renelt equation, given below, per capita growth rates could be forecasted.

$$gp = -0.83 - 0.35Y(1960) - 0.38POP + 3.17SEC + 17.5INV$$

where $Y(1960)$ refers to the initial level of real per capita income at international prices, POP is the growth rate of the population, SEC is the secondary school enrollment rate, and INV is the share of investment in GDP.

The results are also presented in table 5. There are again significant variations among the countries but on average the forecasted growth rate seems to be around 5 percent. The results are mostly in line with our expectations. Countries with higher investment in human capital and physical capital are forecasted to grow faster.

Using these results, it is not difficult to estimate the number of years it would take these countries to reach current OECD levels of income per capita. While this exercise maybe more relevant for the EE and the Baltics, it nevertheless provides some idea how long it may take the FSU countries if their objective is to enjoy per capita income levels similar to the OECD. The results are presented in table 6. It is clear that it would take most EE and Baltic countries between 20 and 25 years. Russia and Belarus also fall in this range. On the other hand, given initial conditions and economic policies it would take most other FSU longer, on average about 45 years.

Given the parameter values in the Levine and Renelt growth equation various simulation exercises could be performed by changing the variables (levels or growth rates) included in the study. In this paper, the focus is on investment⁶. In particular we ask the question: what would be the impact of raising growth to 30 percent of GDP from its current levels? The result, also presented in table 6,

⁶ For the countries that already had investment ratios above 30 percent this exercise was not performed.

show substantial change in long term growth rates, which is expected. In some cases, the differences are drastic. For example, Armenia's per capita growth rate jumps to 5.8 percent from 2.3 percent which in turn reduces the number of years to converge to OECD levels by 55. This shows the sensitivity of growth rates to changes in investment and is a clear indication that transition countries should aim to save more and invest more.

VI. POLICY ISSUES AND CONCLUSIONS

The main findings of this paper are that reforms in transition economies were successful in reducing inflation and restoring growth. Important as they are, these findings, however, can not explain the transition experience. The question was how to respond to the advent of transition and this is where most countries in EE differed from the FSU, with the exception of Baltics. As explained in the paper, the EE countries rapidly moved with reforms while the FSU countries were in general, late in developing reform programs and implementing them. But why so?

The crucial difference which largely determined economic policy choices or reform strategies was the political change. It is no secret that almost all EE countries and the Baltics wanted to break away from communism and FSU domination, and transition there in was first characterized by political change. Communists were discredited and removed from power which gave rise to a “period of extraordinary politics” which provided the window opportunity for reforms. (Balcerowicz and Gelb, 1994) . The collapse of the FSU, on the other hand, was different. While there were indications of discontent with the Union, with the exception of the Baltics, these were not as strong as in the EE countries and there were explicit demands for independence. More importantly, when the FSU collapsed, this did not lead to a political change in most FSU states.

Given this, rather than reforming quickly, the former communists hoped that the Commonwealth of Independent States (CIS), which was set up after the collapse of the FSU, would evolve into a loose federation so that trade and financial links would not disappear. In fact, until the Russian Federation issued new rubles and forced out other countries out of the ruble zone in late 1993 many countries did not want implement policies that were too different than Russia's. What political leaders did not realize at the time, however, was the permanent nature of the change which required adjustment. In short, the reform choices were heavily conditioned by the countries' politics and their perceptions and aspirations.

Most clear evidence is the behavior of Baltics. Sharing very similar production structure with other FSU states they left the Union early in the process. Following this, they adopted their currencies and were successful in stabilizing their economies. This is quite telling. All ruble zone countries had the option of moving out of it but did not do so until late 1993. In fact, there is a quickening of pace of reforms after the collapse of the ruble zone in the FSU. As this experience show, knowing where to go has been an important determinant of reforms. The EE and Baltics, wanting to join the European Union (EU) and encouraged by it, first initiated political change which in turn led to reforms. Most FSU countries, not fully knowing whom to align themselves with initially saw no other country other than the Russian Federation, which in turn heavily influenced their reforms.

Once reforms are launched, the outcomes are quite similar as this paper showed. Growth starts about two full years after stabilization although the FSU took about a year longer. This suggests, initial conditions, which are shown to be important in this paper are relevant factors in the process of transition.

Longer term prospects seem more favorable for the EE and the Baltics in the short to medium term. Nevertheless, they still have a catching up to do with the OECD countries as our results showed. However, if they are admitted to the EU, which seems likely after the year 2000, they may attain high growth rates even in the longer term. The FSU countries have even more catching up to do than the EE countries. In the short to medium term countries with slower population growth rates and strong reform efforts could be expected to enjoy rapid rates of growth per capita. The Central Asian countries have relatively high population rates and this is likely to affect their per capita growth rates negatively in the short to medium term. What this suggests is that they need high economic growth rates, exceeding their population growth rates, a clear indication that there is not much room for slowing reforms. Further, given the benefits of integration, there is a strong case for Central Asian countries to push for an economic union, which would also facilitate the restructuring of their economies.

References

- Aghion, Philippe and Olivier Blanchard. "On The Speed of Adjustment In Central Europe", in S. Fischer and J. Rotemberg (eds) NBER Macroeconomics Annual, The MIT Press, Vol. 9, pp. 284-320, 1994.
- Alesina, Alberto. " Political Models of Macroeconomic Policy and Fiscal Reforms", in Voting For Reforms, S. Haggard and S. Webb (eds), World Bank, Oxford University Press, pp. 37-60. 1994.
- Aslund, Anders. "Lessons of the First Four Years of Systemic Change in Eastern Europe", in Journal of Comparative Economics, vol. 19, no. 1, August 1994, pp. 22-39.
- Balcerowicz, Leszek. "Common Fallacies In The Debate On The Economic Transition In Central And Eastern Europe", EBRD Discussion Paper No. 11, October 1993.
- _____ and Alan Gelb, 1994. "Macropolicies in Transition to a Market Economy: A Three-Year Perspective", prepared for the World Bank Annual Conference on Development Economics, April 28-29, Washington, D.C.
- Banerjee, Biswait, Vincent Koen, Thomas Krueger, Marl S. Lutz, Michael Marrese, and Tapio Saavalainen (1995). Road Maps of Transition, The Baltics, the Czech Republic, Hungary and Russia, IMF Occasional Paper No. 127, September 1995.
- Barro, Robert J. 1991. "Economic Growth in a Cross Section of Countries," Quarterly Journal of Economics, 06, May, pp. 407-443.
- Bennett, Adam, G.G. (1994). "Currency Boards: Issues and Experiences," IMF Paper on Policy Analysis and Assessment 94/18.
- Berg, Andrew. "Recession and Structural Adjustment in Poland", paper presented at IMF Seminar titled "Recession and Reform in Poland", January 1993. (?)
- _____ "Does Macroeconomic Reform Cause Structural Adjustment? Lessons From Poland". Journal of Comparative Economics, Vol.18, No.3, pp. 376-410, June, 1994
- _____ and Jeffrey Sachs. "Structural Adjustment And International Trade In Eastern Europe: The Case of Poland", Economic Policy: A European Forum, No. 14, pp. 117-173, April 1992.
- Blanchard, Olivier Jean. "The Economics of Post-Communist Transition," Clarendon Lectures in Economics, Oxford University Press, forthcoming 1997.

- _____, Kenneth A. Froot, and Jeffrey D. Sachs, The Transition in Eastern Europe: Volume II - Restructuring, The University of Chicago Press, Chicago.
- Blejer, Mario I. and Adrienne Cheasty eds. 1993. How to Measure the Fiscal Deficit, International Monetary Fund, Washington, D.C.
- Brada, Joseph, I.J. Singh, and Adam Torok (1994). Firms Afloat and Firms Adrift: Hungarian Industry and the Economic Transition, M.E. Sharpe, London and New York.
- Bredenkamp, Hugh. (1993). "Conducting Monetary and Credit Policy in Countries of the Former Soviet Union: Some Issues and Options", IMF Working Paper 93/23.
- Bruno, Michael, 1993a. Crisis, Stabilization and Economic Reform: Therapy by Consensus, Oxford University Press, Oxford.
- Bruno, Michael. 1993b. "Stabilization and the Macroeconomics of Transition: How Different is Eastern Europe?," in Economics of Transition, Vol. 1, No. 1, EBRD, pp. 5-19.
- Burda, Michael C. 1994. Structural Change and Unemployment in Central and Eastern Europe: Some Key Issues, Discussion Paper Series No. 977, Centre for Economic Policy Research, London, June.
- Calvo, Guillermo, Ratna Sahay and Carlos Vegh. (1995) "Capital Flows in Central and Eastern Europe: Evidence and Policy Options", Draft IMF Working Paper.
- _____.and Manmohan S. Kumar, 1994. "Money Demand, Bank Credit, and Economic Performance in Former Socialist Economies", Staff Papers, International Monetary Fund, Vo.41, No.2, pp. 314-349, June, 1994.
- _____.and Carlos Vegh (1992). "Inflation Stabilization and Nominal Anchors," IMF Papers on Policy Analysis and Assessment 92/4.
- Chadka, Bankim, Fabrizio Coricelli, and Kornelia Krajnyak. "Economic Restructuring, Unemployment, and Growth in a Transition Economy", Staff Papers, International Monetary Fund, Vol.40, No.4, pp. 744-781, December 1993.
- _____ and Fabrizio Coricelli. 1994. Fiscal Constraints and the Speed of Transition, Discussion Paper Series No. 993, Centre for Economic Policy Research, London, July.
- Chu, Ke-young and Gerd Schwartz. 1994. "Output Decline and Government Expenditures in European Transition Economies," IMF Working Paper No. WP/94/68, International Monetary Fund, Washington, D.C., June.

- Citrin, Daniel, J. Anderson, J. Zettelmeyer (1995). "The IMF's Approach to Stabilization in the Baltics, Russia and the Other FSU Countries," Economic Policy in Transition Economies (MOCT), Kluwer Academic Publishers, Vol. 5, No. 2.
- Conway, Patrick (1995). Currency Proliferation: The Economic Legacy of the Soviet Union. Forthcoming, Princeton Studies in International Finance.
- Coricelli, Fabrizio. 1994. "Fiscal Issues in Transition Economies," Department of Economics, University of Sienna, Italy, September.
- Dabrowski, Marek. 1995. "Different Strategies of Transition to a Market Economy: How Do They Work in Practice?", mimeo, Transition Economies Division, Policy Research Department, World Bank.
- de Grauwe, Paul. 1995. "Monetary Policies in the EMS" in C. Bordes, E. Girardin, J. Melitz (eds.) European Currency Crises and After, Manchester University Press, Manchester and New York.
- de Melo, Martha, Cevdet Denizer, and Alan Gelb. 1996. "From Plan To Market: Patterns of Transition," Policy Research Department, World Bank, April (revised).
- _____, Cevdet Denizer, Alan Gelb, and Stoyan Tenev. 1997 forthcoming. "Explaining Transition: the Role of Initial Conditions in Reforming Socialist Countries", Policy Research Department, World Bank, Washington, D.C.
- _____, and Alan Gelb, "A Comparative Analysis of Twenty Eight Transition Economies in Europe and Asia," Post-Soviet Geography and Economics, 1996, 37, no. 5, pp. 265-285.
- Easterly, William. (1995) "When is stabilization expansionary?", Working Paper, Policy Research Department, World Bank, Washington, D.C.
- Easterly, William and Michael Bruno. 1994. "Inflation Crises and Long-run Growth", mimeo, Policy Research Department, World Bank.
- Easterly, William, Martha de Melo, and Gur Ofer. 1994. "Services as a Major Source of Growth in Russia and Other Former Soviet States", Working Paper Series No. ?, Policy Research Department, World Bank. Mario Blejer, ed., Macroeconomic and Structural Aspects of Russian Economic Reform, International Center for Growth.
- Edwards, Sebastian (1992). "Stabilization and Liberalization Policies for Economies in Transition: Latin American Lessons for Eastern Europe," in C. Clague and Rausser (eds.) The Emergence of Market Economies in Eastern Europe, Basil Blackwell Publishers.
- European Bank for Reconstruction and Development. 1994. Transition Report, EBRD, London.

_____. (1995). Transition Report Update, EBRD, London. April 1995.

Fan, Qimiao and Mark Shaffer. "Government Financial Transfers and Enterprise Adjustment in Russia, With Comparison To Central And Eastern Europe", World Bank Discussion Paper, Europe and Central Asia Region, Washington DC, June 1994.

Fedorov, Boris (1995). "Macroeconomic Policy and Stabilization in Russia", in Aslund, Anders (ed.) Russian Economic Reform at Risk, London and New York: Pinter.

Fischer, Stanley. (1986). "Exchange Rate versus Money Targets in Disinflation" in Indexing, Inflation and Economic Policy, MIT Press.

_____ and Alan Gelb. (1991). "The Process of Economic Transformation", Journal of Economic Perspectives 5(1).

_____, Ratna Sahay, and Carlos A. Végh. "Stabilization and Growth in Transition Economies: The Early Experience," The Journal of Economic Perspectives, Vol. 10, No. 2, Spring 1996, pp. 45-66.

_____, "From Transition to Market: Evidence and Growth Prospects," International Monetary Fund, Washington, D.C., August 1996.

Gelb, Jefferson, and Singh. (1993). "Can Communist Economies Transform Incrementally? The Experience of China", in O. Blanchard and S. Fischer (eds) NBER Macroeconomics Annual, The MIT Press, Vol.8, pp. 87-133.

Gros, Daniel and Alfred Steinherr. 1995. Winds of Change: Economic Transition in Central and Eastern Europe, Longman Group UK Limited, United Kingdom.

Hanke, Steve, and Kurt Schuler (1994). Currency Boards for Developing Countries. A Handbook, International Center for Economic Growth, ICS Press, San Francisco.

Havrylyshyn, Oleh, M. Miller and W. Perraudin (1994). "Deficits, inflation and the political economy of Ukraine", Economic Policy, no. 19, October.

Helliwell, John F. 1994. "Empirical Linkages Between Democracy and Economic Growth," in British Journal of Political Science, Vol. 24, part 2, pp. 225-248.

Horst, Siebert (ed). Overcoming the Transformation Crisis, Institut für Weltwirtschaft an der Universität Kiel, 1993.

Hughes, Gordon and Paul Hare, 1994. The International Competitiveness of Industries in Bulgaria, Czechoslovakia, Hungary, and Poland, Oxford Economic Papers 46, pgs. 200-221.

- Hung, Nguyen Manh, editor. 1992. The Challenges of Vietnam's Reconstruction, Indochina Institute, George Mason University, Fairfax, Virginia, and East-West Center, Honolulu.
- Ickes, Barry and Randi Ryterman. 1993. "From Enterprise to Firm: Notes for a Theory of the Enterprise in Transition", Chapter 5 in The Postcommunist Economic Transformation, edited by Robert Campbell, Westview Press, Boulder.
- Inkeles, Alex. 1990. "Introduction: On Measuring Democracy", in Studies in Comparative International Development, Vol. 25, no. 1, pp.3-6.
- International Monetary Fund. 1994. World Economic Outlook: World Economic and Financial Surveys, Washington, D.C., October.
- _____. 1995. World Economic Outlook: World Outlook Economic and Financial Surveys, Washington, D.C., May.
- _____. "Financial Relations Among Countries of the Former Soviet Union", in IMF Economic Review, no. 1.
- Jackman, Richard. 1994. "Economic Policy and Employment in the Transition Economies of Central and Eastern Europe: What Have We Learned?," in International Labour Review, Vol. 133, No. 3, pp. 327-345.
- Karatnycky, Adrian. 1995. "Democracies on the Rise, Democracies at Risk", in Freedom Review. January/February 1995, Freedom House, pp. 5-22.
- Kierzkowski, Henryk, Edmund Phelps, and Gylfi Zoega. 1994. "Mechanisms of Economic Collapse and Growth in Eastern Europe," PPRG Discussion Paper No. 30, Polish Policy Research Group, Warsaw.
- Kopits, George and Erik Offerdal. 1994. "Fiscal Policy in Transition Economies: A Major Challenge," in Finance and Development, Vol. 31, No. 4, pp. 10-13, International Monetary Fund/The World Bank, Washington, D.C., December.
- Kornai, János. 1995. Highway and Byways: Studies on Reform and Post-Communist Transition, The MIT Press, Massachusetts-London.
- _____. 1993a. "Transformational Recession: A General Phenomenon Examined through the Example of Hungary's Development", Economie Applique, vol. 46, no. 2, pp. 181-227.
- _____. 1993b. "The Evolution of Financial Discipline under the Postsocialist System", Kyklos, Vol.46, No. 3.

_____. 1992. The Socialist System: The Political Economy of Communism, Princeton University Press, New Jersey.

Lane, Timothy, and Elias Dinopoulos. "Fiscal Constraints on Market Oriented Reform in a Socialist Economy" Working Paper, International Monetary Fund, Research Department, July 1991.

Lavigne, Marie. 1995. The Economics of Transition: From Socialist Economy to Market Economy, St. Martin's Press, New York.

Leijonhufvud, Axel. 1994. "The Macroeconomic Dilemma of Russia", Commencement Lecture at the Central European University, Prague, August.

Levine, Ross and David Renelt. 1992. "A Sensitivity Analysis of Cross-Country Growth Regressions," American Economic Review, 82, September, pp. 942-963.

McKinnon, Ronald I. "Financial Growth and Macroeconomic Stability in China, 1978-1992: Implications for Russia and Other Transitional Economies", Journal of Comparative Economics, Vol. 18, No. 3, pp. 438-470, June, 1994.

Milanovic, Branko. 1995. "Poverty, Inequality and Social Policy in Transition Economies", Research Project on Income Distribution during the Transition, Paper no. 9, Policy Research Department, Washington, D.C. April.

Murrell, Peter. "How Far Has the Transition Progressed?" The Journal of Economic Perspectives, Vol. 10, No. 2, pp. 25-44, Spring 1996.

Ofer, Gur. 1987. "Soviet Economic Growth: 1928-85", Journal of Economic Literature, 25, 4, pp. 1767-1833.

Portes, Richard, editor, 1993. Economic Transformation in Central Europe: A Progress Report, Centre for Economic Policy Research, London.

Rona-Tas, Akos. 1994. "The First Shall be Last? Entrepreneurship and Communist Cadres in the Transition from Socialism", in American Journal of Sociology, vol. 100, no. 1 pp. 40-69.

Rostowski, Jacek. "Systemic Requirements for Monetary Stability in Eastern Europe and the FSU", IMF Working Paper, WP/94/24.

Saavalainen, T.O. (1995). "Stabilization in the Baltic Countries: A Comparative Analysis." IMF Working Paper, WP/95/44.

Sachs, Jeffrey (1994). "Russia's Struggle with Stabilization: Conceptual Issues and Evidence," Paper presented at the World Bank's Annual Conference on Development Economics.

_____ and Wing Thye Woo, (1994). "Structural Factors in the Economic Reforms of China, Eastern Europe, and the Former Soviet Union", Economic Policy, Vol. 18, April 1994.

Sahay, Ratna and Carlos Végh, (1995). "Inflation and Stabilization in Transition Economies: A Comparison with Market Economies", IMF Working Paper, WP/95/8.

_____. (1995) "Dollarization in Transition Economies: Evidence and Policy Implications" Unpublished, March, 1995.

Sargent, Thomas (1982). "The Ends of Four Big Inflations", in Robert Hall (ed.), Inflation, Causes and Effects, National Bureau of Economic Research, published by The University of Chicago Press, Chicago.

Stiglitz, Joseph E. 1994. Whither Socialism, The MIT Press, Massachusetts-London.

Tanzi, Vito (ed). Fiscal Policies in Economies in Transition, International Monetary Fund, Washington DC, 1992.

Tanzi, Vito 1993. "The Budget Deficit in Transition: A Cautionary Note," in IMF Staff Papers, Vol. 40, No. 3, pp. 697-707, International Monetary Fund, Washington, D.C., September.

Taylor, Lance (1994). "Market Met Its Match: Lessons For Future From The Transition's Initial Years 1994", Journal of Comparative Economics, Vol.19, pp. 64-87.

Thuyet, Pham van. 1995. "Legal Framework and Private Sector Development in Transitional Economies: the Case of Vietnam", mimeo, Policy Research Department, World Bank.

Végh, Carlos A. "Stopping High Inflation: An Analytical Overview" IMF Staff Papers, Vol.39, No.3, pp. 626-695, September 1992.

Windell, James, Richard Anker and Gyorgy Sziraczki (1995) "Kyrgyzstan: Enterprise restructuring and labor shedding in a free-fall economy, 1991-1994", Labor Market Paper No. 5, Employment Department, International Labor Office, Geneva.

Wing, Thye Woo. "The Art of Reforming Centrally Planned Economies: Comparing China, Poland, and Russia", Journal of Comparative Economics, Vol. 18, No.3, pp. 276-309, June, 1994.

World Bank, Uzbekistan: An Agenda for Reform, Washington, D.C.

World Bank (1995), Kyrgyz Republic Economic Report, Washington, D.C.

World Bank (1996), World Development Report: From Plan to Market, Washington, D.C.

Yusuf, Shahid. " China's Macroeconomic Performance and Management During Transition", Journal of Economic Perspectives, Vol.8, No.2, pp 71-92, June 1994.

